

WHAT IS CLAIMED IS:

- 1 1. A configurable interface controller, comprising:
2 a common component bus;
3 a plurality of individual controller buses that are
4 adapted to interface with a plurality of individual
5 interface controllers; and
6 adaptation logic to dynamically connect the common
7 component bus to the individual controller buses.
- 1 2. The configurable interface controller as described in
2 claim 1 wherein the common component bus includes a
3 plurality of interface pins.
- 1 3. The configurable interface controller as described in
2 claim 2 wherein the adaptation logic further includes:
3 assignment logic that is adapted to assign a first
4 interface pin from the plurality of interface pins to
5 a first individual controller from the plurality of
6 individual interface controllers.
- 1 4. The configurable interface controller as described in
2 claim 3 wherein the assignment logic is adapted to re-
3 assign the first interface pin to a second individual
4 controller from the plurality of individual interface
5 controllers.
- 1 5. The configurable interface controller as described in
2 claim 1 wherein the common component bus, the
3 plurality of individual controller buses, and the
4 adaptation logic are included on a single substrate.

1 6. The configurable interface controller as described in
2 claim 5 wherein the common component bus is adapted to
3 interface with one or more peripheral devices external
4 to the single substrate.

1 7. The configurable interface controller as described in
2 claim 1 wherein the adaptation logic is adapted to
3 dynamically connect the common component bus to the
4 individual controller buses during system
5 initialization.

1 8. A method for dynamically assigning interface pins,
2 said method comprising:
3 receiving a first assignment request;
4 identifying one or more interface pins that correspond
5 to the first assignment request;
6 selecting a first interface controller from a
7 plurality of interface controllers that correspond to
8 the first assignment request; and
9 associating the identified interface pins with the
10 selected interface controller.

1 9. The method as described in claim 8 wherein the
2 identified interface pins are selected from the group
3 consisting of an input interface pin and an output
4 interface pin.

1 10. The method as described in claim 8 further comprising:
2 receiving a second assignment request, the second
3 assignment request corresponding to the identified
4 interface pins;

5 selecting a second interface controller from the
6 plurality of interface controllers that correspond to
7 the second assignment request; and
8 re-associating the identified interface pins to the
9 second interface controller.

1 11. The method as described in claim 8 wherein the
2 associating is performed using a look-up table.

1 12. The method as described in claim 8 further comprising:
2 determining whether there are more interface pins that
3 are not associated with the first interface
4 controller; and

5 assigning the non-associated interface pins to a
6 second interface controller in response to the
7 determination.

1 13. The method as described in claim 8 further comprising:
2 receiving data from the identified interface pins; and
3 providing the data to the first interface controller.

1 14. The method as described in claim 8 wherein the
2 associating is performed at system initialization.

1 15. An information handling system comprising:
2 one or more processors;
3 one or more interface pins;
4 a plurality of interface controllers;
5 a memory accessible by the processors;

one or more nonvolatile storage devices accessible by the processors; and

an interface pin assignment tool for assigning one or more of the interface pins to one of the interface controllers, the interface pin assignment tool including:

means for receiving a first assignment request;

means for identifying one or more of the interface pins that correspond to the first assignment request;

means for selecting a first interface controller from the plurality of interface controllers that correspond to the first assignment request; and

means for associating the identified interface pins with the selected interface controller.

16. The information handling system as described in claim 15 wherein the identified interface pins are selected from the group consisting of an input interface pin and an output interface pin.

17. The information handling system as described in claim 15 further comprising:
means for receiving a second assignment request, the second assignment request corresponding to the identified interface pins;

means for selecting a second interface controller from the plurality of interface controllers that correspond to the second assignment request; and

means for re-associating the identified interface pins to the second interface controller.

18. The information handling system as described in claim 15 wherein the associating is performed using a look-up table.

19. The information handling system as described in claim 15 further comprising:
means for determining whether there are more interface pins that are not associated with the first interface controller; and

means for assigning the non-associated interface pins to a second interface controller in response to the determination.

20. The information handling system as described in claim 15 further comprising:

means for receiving data from the identified interface pins; and

means for providing the data to the first interface controller.

21. A computer program product stored on a computer operable media for dynamically changing pin to interface controller assignment:

means for receiving a first assignment request;

5 means for identifying one or more interface pins that
6 correspond to the first assignment request;

7 means for selecting a first interface controller from
8 a plurality of interface controllers that correspond
9 to the first assignment request; and

10 means for associating the identified interface pins
11 with the selected interface controller.

1 22. The computer program product as described in claim 21
2 wherein the identified interface pins are selected
3 from the group consisting of an input interface pin
4 and an output interface pin.

1 23. The computer program product as described in claim 21
2 further comprising:

3 means for receiving a second assignment request, the
4 second assignment request corresponding to the
5 identified interface pins;

6 means for selecting a second interface controller from
7 the plurality of interface controllers that correspond
8 to the second assignment request; and

9 means for re-associating the identified interface pins
10 to the second interface controller.

1 24. The computer program product as described in claim 21
2 wherein the associating is performed using a look-up
3 table.

1 25. The computer program product as described in claim 21
2 further comprising:

3 means for determining whether there are more interface
4 pins that are not associated with the first interface
5 controller; and

6 means for assigning the non-associated interface pins
7 to a second interface controller in response to the
8 determination.

1 26. The computer program product as described in claim 21
2 further comprising:

3 means for receiving data from the identified interface
4 pins; and

5 means for providing the data to the first interface
6 controller.

1 27. The computer program product as described in claim 21
2 wherein the associating is performed at system
3 initialization.